

REMARKS

Claims 1-22, 24-31, 33-41, 43-46 and 48-54 remain pending in this application for consideration. Claims 1-2, 7, 9-10, 12, 14-22, 24-31, 33-38, 40-41, 43-44, 46 and 51 have been amended to further clarify the invention. Claim 23 has been cancelled for the reason that the limitations provided therein are included in amended Claim 14 from which it depends. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made."

The present invention is directed to a system and method for generating, editing and/or testing staging content on a staging server, and automatically transferring the staging content from the staging server to multiple production servers residing on a computer network (*e.g.*, the Internet) at substantially the same time in response to a publish command received on the staging server. Each production server is then able to provide the transferred staging content to content users of the computer network (*e.g.*, users browsing the Internet) in response to requests routed to the production servers from the content users.

In a first preferred embodiment, access to the staging server is restricted to two access levels. Specifically, a first user associated with a first access level is allowed to control the generation, editing and/or testing of staging content on the staging server, and a second user associated with a second access level is allowed to control the transfer of the staging content from the staging server to the multiple production servers. This security-feature ensures that only those individuals with the proper authorization can access the staging server to perform these tasks.

In a second preferred embodiment, the staging server can receive a rollback command that operatively replaces the staging content transferred from the staging server to the multiple

production servers with the production content that was on the production servers prior to the transfer (the "prior production content"). The replacement of the staging content with the prior production content provides for a rollback to the previous version of the content if desired, such as if a problem is encountered with a particular production server during transfer of content.

Rejections Under 35 U.S.C § 103

Ferrel and Chang

The Examiner has continued to reject Claims 1-31, 33-41, 43-46 and 48-54 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,199,082 to Ferrel *et al.* ("Ferrel") in view of U.S. Patent No. 6,134,582 to Chang *et al.* ("Chang").

Ferrel discloses a multimedia publishing system that can be used to publish on-line newspapers, magazines and the like. In this system, two components of a publication -- layout and content -- are uploaded and stored separately on a server located at a public distribution point. The upload of the layout component of the publication to the public distribution point is performed on a limited basis (*e.g.*, only upon initial creation of the publication) due to the fact that a publication's layout typically remains constant. However, because the content typically changes, the content component of the publication is uploaded to the public distribution point on a regular basis. In operation, when an end user initially downloads the publication, both the content and layout components of the publication are transmitted to the end user's computer. Subsequent downloads, however, transmit only the content component of the publication to the end user's computer because the layout component has been cached on the end user's computer after the initial download. Ferrel discloses that this publication scheme allows for the download of a publication in bandwidth limited environments due to the fact that the layout component of

the publication (which is typically bandwidth intensive) does not need to be transmitted to the end user after the initial download.

Chang merely discloses a system and method that allows an end user to schedule the download of data such as web pages, databases or software, over a computer network such as the Internet.

Applicant respectfully submits that neither Ferrel or Chang disclose a "staging server" as that term is used in the art. Specifically, a "staging server" is defined as "a server used as a temporary stage to test new or revised Web pages before they are made live." See Webopedia (attached hereto). Nevertheless, in order to facilitate allowance of the present application, independent Claims 1, 14, 30, 37, 41, 46 and 51 (from which the remaining claims depend) have been amended to clarify that the "staging server" of the present invention is used to generate, edit and/or test staging content prior to transfer to the production servers, wherein access to the staging server is limited such that the staging content is not accessible by content users of the computer network.

Ferrel does not disclose a staging server that is used to generate, edit and/or test staging content. The Examiner suggests the public distribution point of Ferrel is a staging server. This public distribution point, however, is not a staging server used to generate, edit and/or test staging content. Rather, the public distribution point is in essence a production server that is used to store the layout and content components of the publication for download by end users.

See Ferrel col. 11, Ins. 55-57. Chang also does not disclose such a staging server. Furthermore, because neither Ferrel or Chang disclose a staging server, they do not disclose the automatic transfer of staging content from a staging server to first and second (or a plurality of) production

servers at substantially the same time. For at least these reasons, Applicant respectfully submits that all of the rejected claims are patentable over Ferrel and Chang.

Independent Claims 30 and 37 (from which Claims 31-36 and 38-40 depend) include the additional limitation that access to the staging server is limited to at least two access levels. Specifically, a first user associated with a first access level is allowed to control generation of the staging content on the staging server, and a second user associated with a second access level is allowed to control transfer of the staging content from the staging server to the multiple production servers. Neither Ferrel or Chang disclose a staging server having restricted access as claimed. Therefore, these claims can be further distinguished from Ferrel and Chang.

Independent Claims 41 and 46 (from which Claims 42-45 and 47-50 depend) include the further limitation that the staging content transferred from the staging server to the multiple production servers can be subsequently replaced with previous production content in response to a rollback command received on the staging server. Neither Ferrel or Chang even remotely disclose this limitation. The Examiner suggests that such an "undo command" would inherently be part of the "advanced MPS features" disclosed at Ferrel col. 11, lns. 32-33. These "advanced MPS features," however, relate to the features available to an end user browsing the server located at the public distribution point (*i.e.*, using a navigation tool such as MSN Explorer). They have absolutely nothing to do with commands received on a staging server. Therefore, these claims can also be further distinguished from Ferrel and Chang.

Butman and Reisman

The Examiner has also rejected Claims 1, 5, 7, 13-16, 19, 25, 33-34, 38, 41, 46 and 52 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,867,667 to Butman *et al.* ("Butman") in view of U.S. Patent No. 6,125,388 to Reisman ("Reisman"). Butman discloses a

system that includes a domain communications server connected over the Internet to a number of client side communications servers located at the sites of member corporate clients. Information may be disseminated from any one of the client side communications servers to any or all of the other client side communications servers through the domain communications server. This arrangement creates an intelligent extranet that links a community of member corporate clients together over the Internet via the domain communications server. As a result, each member corporate client can communicate with other member corporate clients as though the others were a part of its own internal network or intranet. Reisman merely discloses an information transport component that can be used with a variety of electronic information products (*e.g.*, electronic magazines) to automate the mass distribution of updates (*e.g.*, current issues) to a wide user base.

Applicant respectfully submits that neither Butman or Reisman disclose a "staging server" that is used to generate, edit and/or test staging content prior to transfer to production servers, wherein access to the staging server is limited such that the staging content is not accessible by content users of the computer network. The portion of Butman relied on by the Examiner to support his proposition that Butman discloses a staging server (Butman col. 13, lns. 18-20) merely states that a client side communications server is able to send information to any of the other client side communications servers by communicating directly with the domain communications server. However, neither the domain communications server or the client side communications servers are used as staging servers to generate, edit and/or test staging content as claimed. The "information transport component" of Reisman is also not used as a staging server as claimed. For at least these reasons, Applicant respectfully submits that all of the rejected claims are patentable over Butman and Reisman.

In view of the foregoing amendments and remarks, it is respectfully submitted that the claims are now in condition for allowance and eventual issuance, and such action is respectfully requested. Should the Examiner have any further questions or comments which need be addressed in order to obtain allowance, he is invited to contact the undersigned attorney at the number listed below.

Acknowledgement of receipt is respectfully requested.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claim 23 has been cancelled.

Claims 1-2, 7, 9-10, 12, 14-22, 24-31, 33-38, 40-41, 43-44, 46 and 51 have been amended as follows:

1. (Three Times Amended) A system for publishing network content, the system comprising:

(a) first and second production servers wherein each production server provides production content to [end] content users of a computer network in response to requests routed to the production server from the [end] content users; [and]

(c) a staging server operatively connected to each of the first and second production servers, wherein an administrator is able to generate, edit and/or test staging content [is generated] on the staging server and wherein the [generated] staging content is automatically transferred from the staging server to the first and second production servers at substantially the same time in response to a publish command received on the staging server; and

(c) wherein the transferred staging content replaces the production content on the production server such that the transferred staging content becomes subsequent production content accessible by the content users of the computer network, and wherein access to the staging server is limited such that the staging content is not accessible by the content users prior to the transfer to the production server.

2. (Amended) The system of Claim 1 further comprising a file server for storing the staging content.

7. (Twice Amended) The system of Claim 1 wherein the staging server is operable to schedule said transfer of the staging content.
9. (Twice Amended) The system of Claim 1 wherein the staging server is operable to replace the production content with [subsequent] prior production content, the [subsequent] prior production content comprising production content previously transferred to the first production server.
10. (Twice Amended) The system of Claim 1 wherein the staging server is operable to prevent alteration of the staging content on the staging server.
12. (Twice Amended) The system of Claim 1 wherein the staging server is operable to provide user selections for at least two actions selected from the group consisting of:
- generating requests for additional content from the network;
 - scheduling said transfer of the staging content;
 - canceling said scheduled transfer;
 - replacing the production content with [subsequent] prior production content and
- controlling saving of the production content;
- preventing alteration of the staging content on the staging server, and
 - providing information selected from the group consisting of: log files, status information and combinations thereof.

14. (Three Times Amended) A method for publishing content on a computer network, the method comprising the steps of:

(a) providing a staging server wherein an administrator is able to generate, edit and/or test [generating the] staging content on [a] the staging server;

(b) limiting access to the staging server such that the staging content is not accessible by content users of the computer network;

([b]c) receiving a publish command on the staging server;

([c]d) automatically transferring the [generated] staging content from the staging server to first and second production servers at substantially the same time in response to step ([b]c);
[and]

(e) replacing production content on the first and second production servers with the transferred staging content such that the transferred staging content becomes subsequent production content; and

([d]f) providing the subsequent production content to the content [end] users of the computer network in response to requests routed to either of the first and second production servers from the [end] content users.

15. (Amended) The method of Claim 14 further comprising:

([e]g) storing the staging content on a file server.

16. (Amended) The method of Claim 15 wherein step ([e]g) comprises storing the staging content prior to performing step (d).

17. (Amended) The method of Claim 14 further comprising:
([e]g) verifying a user for access to the staging server.
18. (Amended) The method of Claim 17 further comprising:
([f]h) segmenting step (a) for a plurality of [users] administrators.
19. (Twice Amended) The method of Claim 17:
wherein a same address is associated with the staging server and the first production server;
further comprising: ([f]h) routing requests to the staging server in response to step ([e]g).
20. (Amended) The method of Claim 17 wherein step ([e]g) comprises verifying access by the user as one of at least two access levels.
21. (Amended) The method of Claim 20 further comprising step ([e]g) of limiting control of step ([b]c) to a first of the at least two access levels.
22. (Amended) The method of Claim 20 further comprising step ([e]g) of limiting control of step (a) to the administrator.
24. (Twice Amended) The method of Claim 23 wherein step ([e]g) comprises generating requests for additional content from the computer network from the staging server.

25. (Twice Amended) The method of Claim 14 further comprising step ([e]g) of scheduling step ([c]d) from the staging server.
26. (Amended) The method of Claim 25 wherein step ([e]g) comprises canceling step ([c]d).
27. (Amended) The method of Claim 14 further comprising:
- ([e]g) receiving a replace content command; and
 - ([f]h) replacing the production content on the first and second production servers with [subsequent] prior production content in response to step ([f]g), the [subsequent] prior production content comprising content previously on the first and second production servers.
28. (Twice Amended) The method of Claim 14 further comprising step ([e]g) of providing information selected from the group consisting of: log files, status information and combinations thereof in the staging server.
29. (Twice Amended) The method of Claim 14 further comprising providing user selections for at least two actions selected from the group consisting of:
- testing the interaction of the staging content with the computer network from the staging server;
 - scheduling step ([c]d);
 - canceling said scheduled transfer;

replacing the production content on the first and second production servers with [subsequent] prior production content, the [subsequent] prior production content comprising production content previously on the first and second production servers;

preventing alteration of the staging content on the staging server by a content user; and
providing information selected from the group consisting of: log files, status information and combinations thereof.

30. (Three Times Amended) A method for publishing content on a computer network, the method comprising the steps of:

- (a) providing a staging server on the computer network;
- (b) limiting access to the staging server such that the server is not accessible by content users of the computer network, the access comprising at least first and second access levels;
- (c) generating [the] staging content on the staging server;
- (d) restricting step (c) in response to a command associated with the first access level;
- (e) receiving a publish command on the staging server;
- (f) automatically transferring the generated staging content from the staging server to first and second production servers at substantially the same time in response to step (e); and
- (g) restricting step (f) in response to a command associated with the second access level.

31. (Amended) The method of Claim 30 wherein step (c) comprises editing the staging content.

33. (Twice Amended) The method of Claim 30 further comprising:

(h) replacing production content on [a] the first and second production servers with the transferred staging content of step ([c]f); and

(i) reversing step (h).

34. (Twice Amended) The method of Claim 30 wherein step (f) comprises replacing the transferred staging content of step ([c]f) on the first and second production servers with the production content.

35. (Twice Amended) The method of Claim 30 wherein:

the staging server includes segmented software; and

step (c) comprises generating staging content for each of a plurality of [users] administrators, each [user] administrator associated with a segment of the segmented software.

36. (Twice Amended) The method of Claim 30 further comprising providing user selections for at least two actions selected from the group consisting of:

testing the interaction of the staging content with the computer network from the staging server;

scheduling a transfer of the staging content to [a] the first production server and the second production server;

canceling said scheduled transfer;

transferring the staging content to the first production server and [a] the second production server in response to a publish command;

replacing production content on the first production server with [subsequent] prior production content, the [subsequent] prior production content comprising content previously on the first production server and the second production server;

preventing alteration of the staging content on the staging server by a user associated with a second of the at least two access levels; and

providing information selected from the group consisting of: log files, status information and combinations thereof.

37. (Twice Amended) A system for publishing content on a computer network, the system comprising:

a staging server and associated software comprising a staging area on the computer network, the staging area operable to allow generation, editing and/or testing of [the] staging content and transfer of the staging content from the staging area to a plurality of production areas at substantially the same time; [and]

a firewall operable to limit access to the staging area to at least two access levels such that the staging area is not accessible by content users of the computer network, the firewall operatively connected to the staging server; and

wherein a first user associated with a first of the at least two access levels is allowed to control generation, editing and/or testing of the staging content, and wherein a second user associated with a second of the at least two access levels is allowed to control transfer of the staging content from the staging area to the production areas.

38. (Amended) The system of Claim 37 further comprising a production server associated with production content; and

wherein the production content is replaced with the staging content associated with the staging area and the replacement is reversed at a later time.

40. (Amended) The system of Claim 37 further comprising a user interface associated with selections for at least two actions selected from the group consisting of:

testing the interaction of the staging content with the computer network from the staging area;

scheduling a transfer of the staging content to a first production server and a second production server;

canceling said scheduled transfer;

transferring the content to the first production server and [a] the second production server in response to a publish command;

replacing production content on the first production server and the second production server with [subsequent] prior production content, the [subsequent] prior production content comprising content previously on the first production server and the second production server;

providing information selected from the group consisting of: log files, status information and combinations thereof.

41. (Twice Amended) A method for publishing content on a computer network, the method comprising the steps of:

(a) providing a staging server and a plurality of production servers on the computer network, the staging server associated with staging content and each of the production servers associated with production content, wherein the staging content is not accessible on the staging server by content users of the computer network;

(b) replacing the production content on each of the production servers with the staging content at substantially the same time in response to a publish command associated with the staging server whereby the staging content becomes accessible on the production servers by the content users of the computer network; and

(c) replacing the staging content on each of the production servers with the production content at substantially the same time in response to a rollback command associated with the staging server whereby the production content is accessible on the production servers by the content users of the computer network.

43. (Twice Amended) The method of Claim 41 further comprising:

(d) limiting access to the staging server to at least two access levels;

(e) generating the staging content on the staging server; and

(f) restricting step (e) in response to a command associated with one of the at least two access levels.

44. (Twice Amended) The method of Claim 41 wherein:

the staging server includes segmented software; and

further comprising (d) generating staging content for each of a plurality of [users] administrators, each [user] administrator associated with a segment of the segmented software.

46. (Twice Amended) A system for publishing content on a computer network, the system comprising:

a staging server associated with the computer network and with staging content, wherein access to the staging server is limited such that the staging content is not accessible by content users of the computer network;

a plurality of production servers wherein each production server is associated with the computer network and with production content that is accessible by the content users of the computer network;

a staging server user interface that allows a user to select a publish command associated with replacement of the production content on each of the production servers with the staging content at substantially the same time; and

wherein the staging server user interface also allows the user to select a rollback command associated with replacement of the staging content on each of the production servers with the production content at substantially the same time.

51. (Twice Amended) A method for publishing content on a computer network, the method comprising the steps of:

- (a) generating, editing and/or testing [the] staging content on a staging server, wherein access to the staging server is limited such that the staging content is not accessible on the staging server by content users of the computer network;
- (b) replicating the staging content to at least first and second temporary directories;
- (c) transferring substantially simultaneously the [generated] staging content from the staging server to first and second production servers associated with the first and second temporary directories, respectively; and
- (d) providing the transferred staging content to [end] the content users of the computer network in response to requests routed to either of the first and second production servers from the [end] content users.